

## REMARKS

### Amendments to the Specification

Paragraph [0012] has been amended to delete a redundant component.

As requested by the Examiner, paragraph [0076] has been amended to delete the attorney docket number and insert an application serial number.

### Support for Claim Amendments

Claims 1 and 35-42 have been amended to recite that the hydrogenated block copolymer comprises a styrene-(ethylene-butylene)-styrene triblock copolymer. Support for these amendments may be found in Claim 15 as filed.

Claim 14 has been amended to correct the structure of the alkenyl aromatic compound. Support for this amendment may be found in paragraph [0032] of the application as filed.

### Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 42-46 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art to which it pertains, or with which it was most nearly connected, to make and/or use the invention. Specifically, the specification as filed allegedly does not disclose a “reaction product” of the various materials recited in claims 42-46 and does not disclose how to make such a reaction product. Applicants respectfully traverse this rejection.

A claim is enabled for the purposes of 35 U.S.C. § 112, first paragraph if the specification teaches “those in the art to make and use the invention without undue experimentation.” *In re Wands*, 858 F.2d 731, 737 (1988). Claims 42-46 are enabled because the specification teaches those skilled in the art to use the corresponding inventions without any additional experimentation. Applicants note, first, that that starting material compositions giving rise to the reaction products are described in detail

in paragraphs [0014] through [0073] of the specification. Applicants note, second, that articles comprising reaction products of compositions such as those in Claim 1 are expressly mentioned at paragraph [0013] of the specification as filed. Applicants further note that methods of blending and extruding the composition are described at paragraphs [0075], [0076], [0082], and [0083], and that methods for forming articles are taught at paragraphs [0077] and [0084]. Finally, applicants note that those skilled in the art will appreciate that “reaction products” refers to the possibility that one or more starting material components in the composition may chemically react during compounding and/or subsequent processing required to form an article (e.g., injection molding). For example, an amine-substituted carbon on a polyphenylene ether may undergo deamination and react with a pendant double bond of a styrene-butadiene-styrene block copolymer. Because such reaction products may be formed during processing, the processing methods described in paragraphs [0075], [0076], [0082], and [0083] (blending and extruding), and [0077], [0084] (article formation) of the specification serve as methods for the preparation of reaction products. The specification therefore provides the compositions and methods necessary to form the reaction products, and no additional experimentation would be necessary for one skilled in the art to practice the inventions of Claims 42-46. Accordingly, the rejection of Claims 42-46 under 35 U.S.C. §112, first paragraph, should be withdrawn.

#### Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 14, 26-29, and 31 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse these rejections.

Claim 14 was rejected as unclear based on the term “naphthyl group including.” Claim 14 has been amended to delete the offending word “including.”

Claims 26-29 were rejected as unclear because the ethylene/alphaolefin copolymer is embraced by the polyolefin of independent claim 1. Claim 26 has been amended to recite that the polyolefin is homopolypropylene. Support for this amendment

may be found, at least, in Claim 12 as filed. Given that each of Claims 27-29 depends directly from Claim 26, the polyolefin is therefore distinct from the ethylene/alphaolefin in Claims 26-29.

Claim 31 was rejected because the term “substantially free” is allegedly subjective as to how much substantially would embrace. The Federal Circuit has recently reiterated that the term “substantially” is commonly used in patent claims and is not indefinite when it “serves reasonably to describe the subject matter so that its scope would be understood by persons in the field of the invention, and to distinguish the claimed subject matter from the prior art.” *Verve LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1119 (Fed. Cir. 2002). It is also well established that claims must be interpreted in light of the specification and given their broadest possible interpretation. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Applicants respectfully assert that there is no ambiguity in the term “substantially free,” because a composition “substantially free of reinforcing fillers” is most broadly defined in paragraph [0066] as comprising less than 0.5 weight percent of reinforcing fillers. Claim 31 is therefore not indefinite.

Believing that they have addressed all of the Examiner’s concerns, Applicants respectfully request the reconsideration and withdrawal of the rejection of Claims 14, 26-29, and 31 under 35 U.S.C. § 112, second paragraph.

#### Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-46 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 5,081,187 to Maruyama. Applicants respectfully traverse this rejection.

U.S. Patent No. 5,081,187 to Maruyama et al. (“Maruyama”), generally describes a composition comprising (a) 20-95 weight percent polyolefin, (b) 5-80 weight percent polyphenylene ether, (c) 2-45 parts by weight per 100 parts by weight (a)+(b) of a partially hydrogenated alkenyl aromatic compound-isoprene block copolymer, and (d) 3-45 parts by weight per 100 parts by weight (a)+(b) of an alkenyl aromatic compound-conjugated diene block copolymer (abstract).

Applicants' invention generally relates to thermoplastic compositions comprising a poly(arylene ether); a poly(alkenyl aromatic) resin in an amount of at least about 30 weight percent of the total of the poly(arylene ether) and the poly(alkenyl aromatic) resin; a polyolefin; a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has an alkenyl aromatic content of 40 to about 90 weight percent, and wherein the hydrogenated block copolymer comprises a styrene-(ethylene-butylene)-styrene triblock copolymer; and an unhydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all elements of the invention be disclosed in the prior art. *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A 1970).

Each of Applicants' independent claims recites the presence of a hydrogenated block copolymer that comprises a styrene-(ethylene-butylene)-styrene triblock copolymer. Such triblock copolymers are not specifically taught in Maruyama. To the extent that Maruyama discloses hydrogenated styrene-butadiene block copolymers, such copolymers are described as inferior to Maruyama's required partially hydrogenated alkenyl aromatic compound-isoprene block copolymer (c. 7, ll. 4-14; c. 10, ll. 41-58, Table 1). Maruyama thus fails to disclose Applicants' styrene-(ethylene-butylene)-styrene triblock copolymer, and Maruyama generally teaches away from the use of the hydrogenated styrene-butadiene block copolymers. Accordingly, a prima facie case of obviousness has not been established for any of Applicants' independent claims, and all pending claims are patentable over Maruyama.

Applicants note that Claims 22-25 are further patentable because there is no specific suggestion in Maruyama to use a polypropylene-polystyrene graft copolymer. To the extent that such a copolymer could have been selected from among myriad "copolymers such as random, block, and graft copolymers of a predominant amount of

$\alpha$ -olefins of 3 or more carbon atoms and other unsaturated monomers” (Maruyama, c. 2, ll. 65-68), such a selection is, at best, an impermissible obvious-to-try suggestion. *In re Dow Chemical Co.*, 5 U.S.P.Q.2d 1529, 1532 (Fed. Cir. 1988)(rejecting the “obvious to experiment” standard of obviousness, and stating that “selective hindsight is no more applicable to the design of experiments than it is to the combination of prior art teachings”).

#### Provisional Obviousness-Type Double Patenting Rejections

Claims 1-46 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-43 of copending application Serial No. 09/682,926. Applicants are submitting herewith a terminal disclaimer in compliance with 37 CFR § 1.321(c) to overcome the rejection.

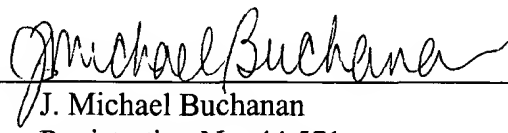
Claims 1-46 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-36 of copending application Serial No. 09/682,923. Applicants are submitting herewith a terminal disclaimer in compliance with 37 CFR § 1.321(c) to overcome the rejection.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862 maintained by Assignee.

Respectfully submitted,

CANTOR COLBURN LLP  
Applicants' Attorneys

By:   
J. Michael Buchanan  
Registration No. 44,571

Date: April 11, 2003  
Customer No.: 23413  
Telephone: (860) 286-2929